

### REMARKS

Reconsideration of the rejections set forth in the Office Action mailed January 6, 2006, is respectfully requested. Claims 4, 10-12, 21, 23-24, 39, 68, 81-82, 84, and 89 have been canceled without prejudice. Claims 1, 14, 28, and 30 have been amended. Claims 90-93 have been newly added. Support for these amendments and new claims can be found in the specification at, e.g., page 38, lines 29-31. Therefore, these amendments have been made without the addition of new matter. Claims 1, 7-9, 13, 14, 16-17, 28-32, 34, 36-37, 67, 72-73, 78-80, 87-88, and 90-93 remain pending.

#### Art Rejections

Claims 1, 4, 7-14, 16, 17, 21, 23, 24, 28, 30-32, 34, 36, 37, 67, 68, 72, 73, and 78-81 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Ribí et al. (USP 5,491,097). Claim 29 is rejected under 35 U.S.C. § 103(a) as allegedly anticipated by Ribí et al. in view of Heller et al. (USP 5,605,662). Claims 1 and 14 require that “*R is activated by a chemical transformation caused by a pH change in an overlying solution generated by providing an electronic potential at at least one electrode of the microarray before reacting with the biomolecule.*” (emphasis added) The examiner has taken the position that Ribí et al. teaches “a covalent bond or linking moiety (column 5, lines 20-53) and a functional group that is streptavidin, biotin, thioester or acetal (column 6, lines 16-22; column 5, lines 40-53) which is activated by providing an electronic potential [at] at least one electrode of the microarray (column 17, lines 55 [sic] - column 18, line 7).” (See Office Action, page 2) Although Ribí et al. describes “Bioelectronic Sensor Activation” (Col. 17, line 54 - Col. 18, line 7), this “activation” concerns the binding of a

specific binding pair, such as an antibody, to the surface and does not involve a chemical transformation caused by a pH change, as required by the claims. According to Ribí et al., “[t]he sensor surface is activated by specifically coupling, either directly or indirectly, the specific binding pair member to the polymer/surfactant surface on the electrode substrate. When the complementary member is an antibody, coupling of the antibody to the sensor is accomplished so that the binding sites of the antibody remain free to associate with specific antigens.”

(emphasis added) (Col. 17, line 63 - Col. 18, line 2) Therefore, the cited references do not teach or suggest all of the limitations of claims 1 and 14 as amended. Claims 7-9, 13, 67, 87, and 90 depend from claim 1 and are therefore, patentably distinct for the same reasons cited above. Claims 16-17, 72-73, 78-80, 88, and 91 depend from claim 14 and are therefore, patentably distinct for the same reasons cited above.

Additionally, claims 1 and 14 were also amended to require that “*R is selected from the group consisting of acetals, ketals, imines, TBOC, FMOC, trityl, trifluoroacetamide, and esters.*” This amendment to the Markush group was made to further clarify the invention. These chemical moieties are all capable of being activated by a chemical transformation caused by a pH change, as required by the currently amended claims. Support for this amendment can be found in the specification at, e.g., page 38, lines 29-31. Therefore, this amendment was made without the addition of new matter.

Claim 28 was amended to include the limitation of claim 39, which was indicated as allowable. Additionally, the Markush group for R was deleted from this claim. Applicants believe that none of the cited references teach or suggest all of the limitations of the claims as

currently amended. Claims 29-32, 34, 36-37, and 92-93 depend from claim 28 and are therefore, patentably distinct for the same reasons cited above.

For all the foregoing reasons, Applicants assert the claims are in condition for allowance. Favorable action on the merits of the claims is therefore earnestly solicited. If any issues remain, please contact Applicants' undersigned representative at (949) 760-9600. The Commissioner is hereby authorized to charge any additional fees that may be required to Deposit Account No. 50-2862.

Respectfully submitted,  
O'MELVENY & MYERS LLP

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By: Diane K. Wong  
Diane K. Wong  
Reg. No. 54,550  
Attorneys for Applicants

DBM/DKW/dnd

O'Melveny & Myers LLP  
610 Newport Center Drive, 17<sup>th</sup> Floor  
Newport Beach, CA 92660-6429  
(949) 760-9600